reference resistor **29**, the voltage developed across reference resistor **29** at any temperature is substantially the same as the voltage drop across data resistor **30** caused by current I_a flowing through data resistor **30.** The input reference voltage is thus adjusted at a rate that maintains current I_a substantially constant through data resistor **30** when the associated word line is selected.

cont. A1

IN THE CLAIMS

Substitute claim 2:

2. (Amended) A temperature compensation circuit as recited in Claim 1 wherein electrical conductive properties of said reference resistor are selected to be the same as the electrical conductive properties of said data resistors.

A2

Substitute claim 7:

7. (Amended) A temperature compensation circuit as recited in Claim 1 wherein conductive properties of said reference resistors are selected such that a change in electrical conductive properties of said reference resistors matches a change in electrical conductive properties of said data resistors.

A3

Substitute claim 19:

19. (Amended) A method to maintain a current through Read-Only Memory (ROM) substantially constant as temperature changes wherein said ROM employs a plurality of data resistors to provide electrical interconnections between a plurality of input lines and output lines, comprising the steps of:

selecting a reference resistor wherein a change in electrical conductive properties of said reference resistor matches a change in electrical conductive properties of said data resistor;

supplying a reference voltage to said input lines, said reference voltage developed by supplying a constant current to said reference resistor, wherein said reference voltage is responsive to a change in temperature.

A4